

REMARKS

Claims 1 to 21 are in the case. Claims 1 and 9 have been amended to remove informalities and new claims 20 and 21 have been added depending from independent claim 1. Support for new claims 20 and 21 can be found in the original disclosure, such as Table 2 on page 10 of the specification as filed. The Examiner is hereby respectfully requested to reconsider the subject application in view of the above amendments and the following remarks.

Claims 1-7 and 9-19 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Law (US Patent No. 5,875,190). This rejection is respectfully traversed.

Independent claim 1 is directed to a method for assigning an address to a network node. Among other claim features, independent claim 1 recites "providing a first address to a first node such that the first address includes a description of a path to the first node." Independent claim 1 also recites "establishing a mapping between a plurality of output ports in the network and bits in the first address." Thereby, "a packet, directed to the first node, at a second node in the network is forwarded via an output port on the second node in the network, in response to a specified bit in the first address having a specified value."

According to the invention as recited in independent claim 1, a self-routing address is provided to a network node. The self-routing address describes a path to the same network node, to which the address is provided. The bits in the self-routing address are mapped with output ports in the network to route packets arriving at a second network node and directed to the first node, which is provided with the first address. The above features in independent claim 1 are not taught by the cited portions of Law.

Law teaches routing a packet 34 from an input port 18 of the switching arrangement to one or more of its output ports 20. To route packets 34 in its distribution network, Law teaches that packets 34 arriving at input ports 18 are modified to include an

extra cell header 32 containing the information required by the distribution networks 13₁ to 13_N to perform their respective routing and multicasting functions (see also col. 6, ln. 64 to col. 7, ln. 3). When generating the extra cell header 32, the switching arrangement first reads an arriving packet 34 to determine the corresponding output port 36 that the packet 34 will be directed to (see also col. 9, ll. 2-5, and col. 9, ll. 8-12), and sets bits in the extra cell header 32 accordingly (see also col. 9, ll. 19-21). In other words, the packets 34 arriving at the input ports 18 are distributed based on the extra cell headers 32. None of the multicasting binary elements 26 in Law is assigned an address. Each binary element 26 acts to reproduce an input cell at one or both of the outputs of the binary element 26, depending on a corresponding bit in the extra cell header 32 (see, col. 7, ll. 6-20).

Law does not teach a method for assigning an address to a network node, as is recited in independent claim 1. In the cited portions of Law (see, col. 3, ll. 53-60; col. 5, ll. 47-55; and col. 8, lines 9-12), Law teaches that each data packet comprises address information. The address information taught in the cited portions of Law is contained in the data packet, rather than being assigned to a network node. As applicants previously submitted, none of the multicasting binary elements 26 in Law is assigned an address. Therefore, the cited portions of Law do not teach, at least, providing an address to a network node, much less an address including a description of a path to the same network node, as is recited in independent claim 1.

Additionally, the cited portions of Law do not teach establishing a mapping for routing a packet directed to the first node, which is provided with the first address, as is recited in independent claim 1. In contrast, Law teaches routing a packet 34 from an input port 18 of the switching arrangement to one or more of its output ports 20. For example, the cited portions of Law teach that the address information contained in the packet 34 identifies the output ports (see, col. 3, ll. 57-59), or that the address field "indicates which of the output ports 20₁ to 20_N the packet is destined for" (see, col. 5, ll. 50-52). There is no teaching in the cited portions of Law that its packet 34 is directed to a network node that is provided with an address. Therefore, the cited portions of Law do

not teach, at least, that "a packet, directed to the first node, at a second node in the network is forwarded via an output port on the second node in the network, in response to a specified bit in the first address having a specified value," as is recited in independent claim 1.

In view of the above, the cited portions of Law do not teach each and every features recited in independent claim 1. Therefore, applicants respectfully submit that the invention recited in independent claim 1 patentably distinguishes over Law. Accordingly, independent claim 1 and its dependent claims 2 - 7 are believed to be allowable.

Claim 3 recites that "at least one node in the network has more than one address." As applicants previously submitted, the cited portions of Law do not teach providing an address to a network node. Accordingly, the cited portions of Law do not teach a network node having one address, let alone more than one address as is recited in claim 3. In the distribution network 13_p taught in the cited portions of Law (i.e., col. 8, II. 6-21; see also Fig. 4), once a set of output ports 20 are destined for a packet 34 arriving at the input port 18_p, there can be only one way to construct the extra cell header 32 to route the packet 34 from the input port 18_p to the destined output ports 20 (see also, col. 9, lines 8-24). Therefore, the cited portions of Law do not teach the additional features recited in claim 3. Accordingly, claim 3 is believed to be allowable for the above additional reasons.

Claims 9 - 19, which were rejected on similar grounds as claims 1 - 7 were, are also believed allowable for at least the same reasons presented above.

New claims 20 and 21 have been added depending from independent claim 1 and therefore are allowable for at least the same reasons that independent claim 1 is allowable.

Applicants have shown that, in addition to claim 8, claims 1-7 and 9-19 are allowable over the cited art and hereby respectfully request that the rejection of the pending claims be withdrawn. Each of the pending claims 1 to 21 in this application is believed to be in immediate condition for allowance and such action is earnestly solicited.

Respectfully submitted,

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By 
Hua Gao

Reg. No.: 40,414

DICKSTEIN SHAPIRO LLP
1177 Avenue of the Americas
New York, New York 10036-2714
(212) 277-6500
Attorney for Applicants